

TYPE-STUDY ON PEAK PERIOD IN HARVESTING *AMAN* PADDY,  
WEST BENGAL, DECEMBER 1954-JANUARY 1955

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**SUMMARY.** There is a general impression that there is much surplus population in rural areas of India: but as Mahalanobis (1955) has stated, this is still an open question, at least at the present level of technology. The results of a Type-study conducted in five villages in West Bengal in 1954-55 suggest that it may be more economical to maintain a supply of labour which would be required at the time of busy periods of agricultural activities, even if they remain comparatively under-employed in the remaining period of the year.

1. INTRODUCTION

1. *Objective.* The importance of basic studies in regard to mobilisation of manpower in rural areas in the peak periods of agricultural activities in the background of national planning was first pointed by P. C. Mahalanobis.<sup>1</sup> "There is a general impression that there is much surplus population in villages, but this is still an open question. It is possible that although the agricultural population is very large, it is needed to supply labour essential at a period of peak load (at the stage of transplanting of the rice crop, or at the stage of harvesting of rice and other crops). If one portion of the agricultural population is drawn away from the villages, there would be some decrease in the outturn of crops. If the decrease in the outturn of foodgrains due to such labour shortage is greater than the net contribution (i.e., total contribution minus consumption of food) of the transferred workers to the national income then obviously it would be economical, in a broad sense, to keep these labour households within the village to supply the peak load of labour required for full agricultural production, even if they do not have other gainful work during the rest of the year. On this view, there would be a biological balance between the size of the agricultural population and the volume of crop production, and it is conceivable that a decrease in agricultural population (without introducing labour-saving devices) might diminish the real income per person" (Mahalanobis, 1955).

1.2. This note presents the results of a type-study carried out in five villages in West Bengal, with a view to measuring the manpower utilisation in the peak week in *Aman* harvesting, December 1954 — January 1955. The villages were so selected as to represent, on a small scale, the varying geographical and occupational patterns obtaining in the State. The very nature of the study precluded the construction of "estimates" proper; regardless, the results could be useful in posing the relevant questions and in evolving the methodology for future studies.

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<sup>1</sup> Later incorporated in (Mahalanobis, 1956, p. 10).

## 2. VILLAGE CHARACTERISTICS

2.1. *Village particulars.* The location, area, population and its distribution in the different livelihood classes in the five villages have been given in Tables 1 and 2.

TABLE 1. LOCATION, AREA AND POPULATION OF THE VILLAGES<sup>1</sup>

district	vill- age	distance (miles) from		area (acres)	popula- tion per acre	number of occu- pied houses	total number of plots	percen- tage of paddy plots	percen- tage of area under paddy
		town	railway station						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. 24-Parganas	<i>G</i>	10	4	508	1.58	184	1350	54.1	64.0
2. Burdwan	<i>N</i>	12	7	460	2.28	370	1400	45.6	73.1
3. West Dinajpur	<i>C</i>	22	37	230	0.35	10	278	59.1	87.4
4. Midnapore	<i>D</i>	16	24	1104	1.21	268	3566	64.3	80.6
5. Cooch Behar	<i>S</i>	3	3	545	0.96	116	2007	48.8	50.5

<sup>1</sup> The full name of the villages are: Uttar Gazipur (*G*), Nandlanghat (*N*), Chandipara (*C*), Daudpur (*D*), and Saulmurichota (*S*).

TABLE 2. PERCENTAGE DISTRIBUTION OF POPULATION IN LIVELIHOOD CLASSES.  
CENSUS 1951

village	popula- tion	percentage of population in livelihood classes							
		agricultural				non-agricultural			
		cultivators of land wholly or mainly owned		culti- vating labourers		non- culti- vating owners of land	produc- tion other than agricul- tural	commerco	transport
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. <i>G</i>	800	78.2	0.8	11.8	0.1	5.2	2.5	0.8	3.6
2. <i>N</i>	1060	3.4	15.1	12.1	0.7	8.8	18.3	6.0	35.6
3. <i>C</i>	80	78.8	21.2	—	—	—	—	—	—
4. <i>D</i>	1337	36.7	47.6	5.2	0.2	0.9	1.4	0.5	7.5
5. <i>S</i>	523	71.6	28.6	—	—	—	—	—	—

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The descriptive location, area, and population of the villages are given below in Table 3. Villages near to, and remote from, towns and railway stations, with population densities low to high, and means of livelihood varying from fully agricultural to mainly non-agricultural, were covered in this study. The location of the villages has been shown in the map.



TABLE 3. DESCRIPTION OF LOCATION, AREA AND POPULATION OF THE VILLAGES

village	district	distance	population density	percentage of paddy plots	area under paddy	means of livelihood
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. G	24-Parganae	intermediate	medium	medium	medium	mainly agricultural
2. N	Burdwan	intermediate	high	low	medium	mainly non-agricultural
3. O	West Dinajpur	remote	low	medium	high	fully agricultural
4. D	Midnapore	next remote	medium	high	high	mainly agricultural
5. S	Cooch Behar	near	medium	low	low	fully agricultural

### 3. POPULATION CHARACTERISTICS

3.1. *Age distribution.* The proportion of population in the young age range 0-16 was maximum (49 percent) in village D (with a high proportion of area under paddy) and the proportion in the working age group 17-61 maximum (63 percent) in "non-agricultural" village N.

TABLE 4. PERCENTAGE DISTRIBUTION OF SAMPLE PERSONS BY AGE GROUP

age-group (years)	village				
	G	N	C	D	S
(1)	(2)	(3)	(4)	(5)	(6)
1. 0-16	43.1	35.9	38.0	49.0	36.3
2. 17-61	53.8	62.8	60.0	51.0	60.4
3. 62 & above	3.1	1.3	1.1	—	3.3
4. all ages (number of sample persons)	100.0	100.0	100.0	100.0	100.0
	(65)	(78)	(80)	(51)	(91)

3.2. *Normal activity status.* The activity status of a person describes his position in the economy as an employer, employee, own account worker, unpaid household enterprise worker (these four categories constituting the gainfully employed), as an unemployed seeking employment (this along with the gainfully employed constituting the labour force) or as a family member engaged in domestic work, student or in other non-productive activities. The percentage distribution of the sample persons by normal activity status is shown in Table 5. The maximum proportion of gainfully employed (50 percent) was observed in "non-agricultural" village N and the minimum (26 percent) in village G. It is interesting to note that the proportion returned as "too young" varied more than the proportion in the young age group 0-16; the ratio of persons with activity status "too young" to persons in age group 0-16 was maximum (0.84) in village D and minimum (0.39) in non-agricultural village and "near" village. This is indicative of the different social mores obtaining in the villages.

TABLE 5. PERCENTAGE DISTRIBUTION OF SAMPLE PERSONS BY NORMAL ACTIVITY STATUS

activity status	village				
	G	N	C	D	S
1. employer	—	5.1	—	—	—
2. employee	3.1	23.1	7.8	15.7	1.1
3. own account worker	23.1	11.5	21.1	11.8	14.3
4. unpaid household labour	—	10.3	3.3	—	22.0
5. gainfully employed	26.2	50.0	32.2	27.5	37.4
6. family members engaged in domestic work	30.8	28.2	32.3	21.5	31.8
7. student	0.2	5.1	3.3	2.0	12.1
8. rentiers, pensioners and remittance holders	—	1.3	—	5.9	—
9. beggars, persons living on charity and on ungainful activity	4.6	—	—	—	—
10. old and infirm	3.1	1.3	4.4	2.0	4.4
11. too young	26.1	14.1	27.8	41.1	14.3
12. total	100.0	100.0	100.0	100.0	100.0
(number of sample persons)	(65)	(78)	(90)	(81)	(91)

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3.3. *Shift in activity status.* The shift in activity status of household members during the busy week from the normal activity status, though small, was mainly experienced by persons normally outside labour force — persons not essentially required in domestic work and students becoming unpaid household labour.

3.4. As a measure of immobility in activity status, i.e., the tendency to remain in the same activity status in the busy week as the normal activity status, Indices of Inertia were calculated. The index of overall Inertia is defined as the percentage of persons having the same activity status both normally and in the busy week as well. The Index of Inertia within the labour force is the percentage of persons normally in labour force, who had the same (normal) activity status in the busy week; the Index of Inertia outside the labour force is similarly defined. The Labour Force Entry Index is defined as the percentage of persons normally outside labour force who entered the labour force during the busy week. These indices for the five villages are shown in Table 6. The index most relevant for our purpose is the Labour Force Entry Index. In three villages, however, persons normally outside labour force entered the labour force in the busy week. In "remote—low population density" village *C* the high index of 32 for females is observed, occasioned by 15, out of a total 29, females not essentially required in domestic work who worked as unpaid household labour during the busy period.

TABLE 6. INDEX OF INERTIA IN ACTIVITY STATUS BY VILLAGE AND SEX OF PERSONS

village	overall inertia			inertia within labour force			inertia outside labour force			labour force entry index		
	male	female	total	male	female	total	male	female	total	male	female	total
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. <i>G</i>	100	100	100	100	—	100	100	100	100	—	*	—
2. <i>N</i>	98	100	99	97	—	70	100	100	100	—	—	—
3. <i>C</i>	98	67	81	100	100	100	100	97	98	7	32	26
4. <i>D</i>	88	100	94	85	100	86	100	100	100	8	—	3
5. <i>S</i>	92	100	98	94	—	94	100	100	100	13	—	4

### 4. HARVESTING DETAIL IN PEAK WEEK

4.1. *Location of peak week.* The peak week, which corresponded to the seven day for which the moving total of the daily harvested areas was maximum, started in the last week of December in all the five villages; no departure from the "normal" date of commencement was observed in the district as a whole (Table 7).

TABLE 7. DATE OF COMMENCEMENT OF HARVESTING IN THE DISTRICTS AND OF THE BUSY WEEK IN THE VILLAGES

district	date of commencement of <i>aman</i> harvesting 1954-55 <sup>1</sup>	village	date of commencement of peak week, <i>aman</i> harvesting, 1954-55
(1)	(2)	(3)	(4)
1. 24-Parganas	1st week of December	<i>G</i>	22 December
2. Burdwan	1st week of December	<i>N</i>	20 December
3. West Dinajpur	1st week of December	<i>C</i>	28 December
4. Midnapore	end of November	<i>D</i>	10 December
5. Cooch Behar	middle of November	<i>S</i>	21 December

<sup>1</sup> Supplement to Calcutta Gazette, April 21, 1955, p. 383.

4.2. *Man-days spent on harvesting and related operations.* Of the man-days worked for harvesting in the peak week, the proportion spent directly on harvesting varied from 90.8 percent in village *G* to 100 percent in "near" village *S*. The subsidiary activities related to transport, storing, watching, supplying meals, etc.

TABLE 8. PERCENTAGE DISTRIBUTION OF MAN-DAYS WORKED DURING THE PEAK WEEK OF HARVESTING BY PERSONS ENGAGED DIRECTLY IN HARVESTING AND PERSONS NOT ENGAGED IN HARVESTING

village	percentage of man-days worked			number of man-days
	directly engaged in harvesting	not engaged in harvesting	total	
(1)	(2)	(3)	(4)	(5)
1. <i>G</i>	90.8	9.2	100.0	303
2. <i>N</i>	95.7	4.3	100.0	640
3. <i>C</i>	97.5	2.5	100.0	436
4. <i>D</i>	97.9	2.1	100.0	573
5. <i>S</i>	100.0	—	100.0	1201

4.3. *Man-days spent on harvesting during the peak week by age and sex.* These are given in Table 9. As could be expected, a large majority of man-days was contributed by persons in the working age group 17-61; in the young age range 0-16 years, the maximum contribution (21 percent) was made in "remote" village *C*. The maximum proportion of man-days worked by females was also in village *C* (24 percent), "non-agricultural" village *N* coming next with 16 percent. No contribution was made by females in village *G* and in the other two villages the female contribution was very small.

TABLE 9. PERCENTAGE DISTRIBUTION OF MAN-DAYS WORKED IN HARVESTING DURING THE PEAK WEEK BY AGE GROUP AND SEX

village	age groups (years)										number of man-days	
	0-16			17-61			62-above		all			
	male	female	total	male	female	total	male	female	male	female		total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1. <i>G</i>	4.7	—	4.7	95.3	—	95.3	—	100.0	—	100.0	—	275
2. <i>N</i>	2.8	10.8	13.4	81.8	4.8	86.6	—	84.4	15.6	100.0	—	621
3. <i>C</i>	16.5	4.7	21.2	59.7	19.1	78.8	—	76.2	23.8	100.0	—	425
4. <i>D</i>	10.0	1.2	11.2	81.4	6.3	87.7	1.1	92.5	7.5	100.0	—	561
5. <i>S</i>	3.7	—	3.7	98.9	2.3	96.2	0.1	97.7	2.3	100.0	—	1201

4.4. *Distribution of man-days by normal occupation.* The percentage distribution of man-days worked in harvesting during the peak week by normal occupation and sex has been given in Table 10; the agricultural occupations related to farming, cultivation, share-cropping and agricultural labour, but excluded animal husbandry, fishery and hunting. The participation of persons with normal non-agricultural occupations in the "non-agricultural" village *N* and of persons outside labour force in the "remote" village *C* and in village *D*

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(with a high proportion of paddy plots) is to be noticed in this Table. In "non-agricultural" village *N* the majority of man-days (54 percent) was contributed by persons with normal non-agricultural occupations. The comparatively high proportion (30 percent) of man-days was contributed by persons normally outside labour force in "remote—low population density" village *C*, while in village *D* (the "next remote" village), the proportion was 12.1 percent. The proportion of days contributed by females was comparatively less. Of the persons normally outside labour force, the proportion of days contributed by females was higher than males.

TABLE 10. PERCENTAGE DISTRIBUTION OF MAN-DAYS WORKED IN HARVESTING DURING THE BUSY WEEK WITH BREAKDOWNS FOR NORMAL OCCUPATION AND SEX

village	normal occupation										number of man-days		
	agriculture			non-agriculture			outside labour force			total			
	male	female	total	male	female	total	male	female	total	male		female	total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. <i>G</i>	100.0	—	100.0	—	—	—	—	—	—	100.0	—	100.0	275
2. <i>N</i>	46.2	0.2	46.4	38.2	15.4	53.6	—	—	—	84.4	15.6	100.0	621
3. <i>C</i>	63.0	5.9	68.9	0.7	0.5	1.2	12.5	17.4	29.9	76.2	23.8	100.0	425
4. <i>D</i>	84.7	3.2	87.9	—	—	—	7.8	4.3	12.1	92.5	7.5	100.0	561
5. <i>S</i>	97.6	1.5	99.1	0.1	—	0.1	—	0.8	0.8	97.7	2.3	100.0	1201

4.5. *Source of labour supply.* The necessity of obtaining persons, other than household members, on hire or on exchange in the peak week was high-lighted in this study; the proportions of man-days worked by household members, interest holders (relatives and others who worked on some implicit understanding or for sympathy) and by persons obtained on hire and on exchange in the villages are shown in Table 11. In the "non-agricultural" villages *N* and the "near" villages *S*, the major share of the man-days was contributed by persons on hire (59 percent) and persons on exchange (56 percent) respectively; the contribution by household members ranged from 32 percent in the "near" village *S* to 76 percent in the "next remote" village *D*. The contribution by persons engaged on hire was also considerable in "remote-low population density" village *C* (47 percent) and in village *G* (32 percent).

TABLE 11. PERCENTAGE DISTRIBUTION OF MAN-DAYS WORKED IN HARVESTING DURING THE PEAK WEEK BY SOURCE OF LABOUR SUPPLY

village	source of labour supply					number of man-days
	household members	interest holders	on hire	on exchange	total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. <i>G</i>	65.2	0.7	31.6	2.5	100.0	275
2. <i>N</i>	40.9	0.3	58.5	0.3	100.0	621
3. <i>C</i>	53.2	—	46.6	0.2	100.0	425
4. <i>D</i>	75.6	0.4	14.4	0.6	100.0	561
5. <i>S</i>	31.9	—	12.5	55.6	100.0	1201

4.6. The distribution of man-days in the peak week by local and outside labour in the five villages has been shown in Table 12. A major proportion of the persons obtained on hire and on exchange had normal residence outside the villages; the contribution towards the man-days in the peak week by outsiders was thus substantial in the villages where those two types of labour predominated.

TABLE 12. PERCENTAGE DISTRIBUTION OF MAN-DAYS WORKED IN HARVESTING DURING THE PEAK WEEK BY TYPE OF RESIDENCE

village	local	outsider	total	number of man-days
(1)	(2)	(3)	(4)	(5)
1. <i>G</i>	94.9	5.1	100.0	275
2. <i>N</i>	51.2	48.8	100.0	621
3. <i>O</i>	78.8	21.2	100.0	425
4. <i>D</i>	91.1	8.9	100.0	581
5. <i>S</i>	77.6	22.4	100.0	1201

4.7. The distribution of man-days worked by the hired labour during the peak week by type of residence has been given in Table 13. The contribution by outside hired labour was maximum (83 percent) in "non-agricultural" village *N* and minimum (16 percent) in village *G*. The need of recruitment of outside hired labour at the peak period of harvesting is clearly manifest in the Table. Household members residing out<sup>1</sup> and interest holders contributed very small proportion to the total man-days worked by outsiders and they are excluded from consideration in this Table.

TABLE 13. PERCENTAGE DISTRIBUTION OF MAN-DAYS WORKED IN HARVESTING DURING THE PEAK WEEK OBTAINED ON HIRE BY TYPE OF RESIDENCE

village	local	outsider	total	number of man-days
(1)	(2)	(3)	(4)	(5)
1. <i>G</i>	83.0	16.1	100.0	87
2. <i>N</i>	17.1	82.0	100.0	363
3. <i>O</i>	54.5	45.5	100.0	108
4. <i>D</i>	39.6	60.4	100.0	81
5. <i>S</i>	48.8	51.2	100.0	150

<sup>1</sup> The well-known phenomenon of the seasonal migration of factory labour was not observed in the Study, because perhaps of the population composition of the sample villages.



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4.8. The contribution by migrants on hire during the peak week by type of migrant (from neighbouring or distant areas), normal occupation and sex has been given in Table 14. In the "remote-low population density" village *C* and in village *G*, all migrants on hire were obtained from neighbouring villages. In the "next remote" village *D*, migrants on hire from neighbouring villages constituted 86 percent of the man-days contributed by all migrants on hire. In "non agricultural" village *N* and the "near" village *S*, migrants on hire from distant areas contributed 88 and 99 percent respectively of the man-days worked by all migrants on hire. Only in "non-agricultural" village *N*, any contribution by migrants on hire with normal non-agricultural occupation was made; their contribution being 97 percent, 31 percent by females. Only in the "remote-low population density" village *C*, of the man-days contributed by migrants from neighbouring villages on hire, about 17 percent was made by persons normally out of labour force, 14 percent being made by females.

TABLE 14. PERCENTAGE DISTRIBUTION OF MAN-DAYS WORKED IN HARVESTING BY MIGRANTS ON HIRE DURING THE PEAK WEEK BY TYPE OF MIGRANTS, NORMAL OCCUPATION AND SEX

type of migrant	normal occupation												
	agricultural			non-agricultural			out of labour force			total			
	male	female	total	male	female	total	male	female	total	male	female	total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
(1) village : <i>G</i>													
1. neighbouring village	100.0	—	100.0	—	—	—	—	—	—	—	100.0	—	100.0
number of man-days—14													
(2) village : <i>N</i>													
1. neighbouring village	1.7	0.3	2.0	5.0	5.3	10.3	—	—	—	—	6.7	5.6	12.3
2. distant village	1.0	—	1.0	60.8	25.9	86.7	—	—	—	—	61.8	25.9	87.7
3. total	2.7	0.3	3.0	65.8	31.2	97.0	—	—	—	—	68.5	31.5	100.0
number of man-days—301													
(3) village : <i>C</i>													
1. neighbouring village	71.2	12.2	83.4	—	—	—	2.2	14.4	16.6	—	73.4	26.6	100.0
number of man-days—90													
(4) village : <i>D</i>													
1. neighbouring village	85.7	—	85.7	—	—	—	—	—	—	—	85.7	—	85.7
2. distant village	8.2	6.1	14.3	—	—	—	—	—	—	—	8.2	6.1	14.3
3. total	93.9	6.1	100.0	—	—	—	—	—	—	—	93.9	6.1	100.0
number of man-days—49													
(5) village : <i>S</i>													
1. neighbouring village	1.3	—	1.3	—	—	—	—	—	—	—	1.3	—	1.3
2. distant village	98.7	—	98.7	—	—	—	—	—	—	—	98.7	—	98.7
3. total	100.0	—	100.0	—	—	—	—	—	—	—	100.0	—	100.0
number of man-days—77													

4.9. *Intensity of work during the peak week.* For studying intensity of employment during the peak week, the man-days worked by persons directly engaged in harvesting were recorded in intensity classification of less than quarter, quarter, half, and more than half. The distribution of man-days in these intensity classifications by source of labour supply and the average intensity has been given in Table 15. The average intensity was very low (one-third) in the near village *S*; it varied from two-thirds in village *D* to three-fourths or more in the other villages, the maximum being in the "non-agricultural" village *N*. The diluted participation of household members and the high proportion of exchange labour in the "remote-low proportion of paddy area" village *C* were features to be noted.

TABLE 15. PERCENTAGE DISTRIBUTION OF MAN-DAYS WORKED IN HARVESTING DURING THE PEAK WEEK BY INTENSITY OF WORK FOR DIFFERENT SOURCES OF LABOUR SUPPLY

source of labour supply	percentage of days worked with intensity				total	number of man-days	average intensity
	less than quarter	quarter	half	more than half			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. village : <i>G</i>							
1. household members	—	2.8	10.1	87.1	100.0	179	0.77
2. on hire	—	4.8	8.4	86.8	100.0	83	0.76
3. all sources <sup>1</sup>	—	3.3	9.2	87.5	100.0	271	0.77
2. village : <i>N</i>							
1. household members	—	—	7.0	92.4	100.0	240	0.79
2. on hire	2.1	—	5.0	92.9	100.0	341	0.78
3. all sources <sup>1</sup>	1.2	—	6.1	92.7	100.0	594	0.78
3. village : <i>C</i>							
1. household members	—	9.0	11.2	79.8	100.0	223	0.73
2. on hire	—	6.2	7.2	86.6	100.0	195	0.76
3. all sources <sup>1</sup>	—	7.6	9.3	83.1	100.0	419	0.74
4. village : <i>D</i>							
1. household members	—	2.4	53.3	44.3	100.0	413	0.63
2. on hire	—	—	30.8	69.2	100.0	78	0.72
3. on exchange	—	—	58.7	41.3	100.0	46	0.63
4. all sources <sup>1</sup>	—	1.8	50.3	47.9	100.0	539	0.65
5. village : <i>S</i>							
1. household members	16.4	38.4	23.2	23.0	100.0	383	0.40
2. on hire	3.3	42.0	36.0	18.7	100.0	150	0.44
3. on exchange	19.2	54.1	20.6	6.1	100.0	640	0.30
4. all sources <sup>1</sup>	16.3	47.4	23.1	13.2	100.0	1173	0.35

<sup>1</sup> Including other sources of labour supply.

## TYPE-STUDY ON PEAK PERIOD IN HARVESTING AMAN PADDY

### 5. DIFFICULTIES IN CULTIVATION

5.1. *Difficulties experienced in cultivation during the aman season—1964.* Difficulties experienced during the current season were also recorded. Out of the 72 households eleven households usually under cultivation had to keep some land uncultivated in the particular season. In village *G* the reason for this was drought<sup>1</sup> (one household), in village *N*-flood (two households) and in village *S* flood<sup>1</sup> (seven households) and non-availability of bullocks (one household). On an average labour shortage of 19 and 13 man-days respectively was experienced by five households in village *S* and three households in village *C*.

### 6. DISCUSSION OF RESULTS

The necessity of obtaining labour on hire and on exchange during the peak week, local as well as from neighbouring and distant areas, was high-lighted in this Type-study as also the participation in harvesting by persons who normally have non-agricultural occupation or are normally out of labour force. It would thus be seen that if a percentage of population in the villages is withdrawn, there would obviously be some loss in the outturn of crops due to labour shortage in the peak week; especially when it is observed that eleven out of 72 sample households in the five villages experienced some labour shortage during the season and when it is known that harvesting cannot be extended beyond an optimum period without loss. The redeployment of the rural agricultural population and the consequential effects merit more intensive probes than the present material would permit. Conceptually, the whole problem hinges on the question whether the withdrawn population employed in another sector could contribute to the net national product in a better way. If it is granted that there would not be a proportionately greater loss of foodgrains by withdrawal of a part of the rural-agricultural population, two further questions pose themselves : (a) the loss of foodgrains would have to be compensated by imports so that the question of priorities would have also to be considered, which in its train brings in wider issues (Mahalanobis 1958, pp. 14-17); (b) this question *pari passu* would not seem to be physically and concurrently achievable. If, on the other hand, it is assumed that there would be a net loss of foodgrains due to the withdrawal, the problem becomes more complicated. (The human and social costs of withdrawal have also to be considered in any such discussion of alternatives).<sup>2</sup> In any case, on balance of considerations, the only realistic solution is seen to be the injection of investments in the rural agricultural sector in the sphere of small scale and household production, which would mop up underemployment both seasonal and perennial, and the simultaneous broadening of the horizons of technological improvement for increased productivity, consistent with power planning: this, an essentially transitional phase in developmental planning, would also minimise the human and social costs of industrialization and is basically the procedure recommended by Mahalanobis (1955, pp.52-55).

<sup>1</sup> Severe drought hampered the sowing and transplantation of crops in the Southern districts. and heavy rainfall and flood damaged large areas in the Northern districts of West Bengal during Aman 1964-55. *Supplement to the Calcutta Gazette*, April 21, 1965, p. 383.

<sup>2</sup> The inertia to be faced in any scheme of withdrawal is not generally taken into account: findings of the West Bengal Special Demography Study, conducted in 72 villages and 40 urban blocks in April-May 1964, and of the Try-out on Agricultural Labour Enquiry, 1956, covering 24 villages spread out all over India, suggests the existence of considerable inertia (Som and Bhattacharyya, 1958).

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